

REPORT DOCUMENTATION PAGE

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March 6, 2002

Dr. Gernot Pomrenke
AFOSR/NE
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Dear Dr. Pomrenke:

Attached is the final report for the DURIP award "Instrumentation for Integrated Photonic Device Research", F49620-00-0262. Thank you for your support.

Sincerely yours,

Bob Ward

Bruce W. Wessels
W.P. Murphy Professor

Copy ORSP Northwestern University

Final Report: Instrumentation for Integrated Photonic Device Research, supported under the DURIP program under award no. F49620-00-0262, PI Bruce W. Wessels

System description

An SMI Inc vertical rotating susceptor metal organic chemical vapor deposition (MOCVD) apparatus was acquired under the DURIP program for epitaxial ferroelectric oxide deposition. The system has the following features:

1. rotating susceptor
2. multiple inlets for multicomponent oxide deposition
3. low pressure capabilities
4. operating temperatures up to 800°C in oxygen
5. multiple wafer capabilities

The system is currently operational and has been used in support of the AFOSR MURI program on Integrated Devices for Terabit per Second Network Applications, under award no. F49620-0262/005 monitored by AFOSR.